India's Approaching Expeditionary Armed Forces

A Monograph
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Abstract

INDIA'S APPROACHING EXPEDITIONARY ARMED FORCES by MAJ Christopher R Liermann, US ARMY, 45 pages.

The country of India continues to straddle the crossroads of East and West, much as it has done throughout the nineteenth and twentieth centuries. As the world's fastest growing population with an enormous capitalist appetite, India finds itself again on the world stage to be strategic partners with a global power such the United States in one instance, and yet, a global competitor interested in agreements with dubious cohorts such as Russia and China. Because of its increasing interests abroad, India must look internally and ask itself if an expeditionary capable force is in its national interests.

This study aims to ascertain India's position and future stance within Asia and the world, and its goals as a state by analyzing India's military capabilities and intentions on how they will shape their future military capabilities. As a burgeoning strategic partner with the United States, if India is increasingly a stabilizing power within southern Asia, and is beginning to shift to an expeditionary approach to warfare / conflict resolution, then there are key components and subsequent metrics of Joint Operations that the Indian Armed Forces must execute in order to transform their force to one that meets the criteria of being expeditionary.

This study first analyzes India's official stated foreign policy and security strategy objectives and documents. It then address how India's military is building, adapting, and transforming itself to meet its stated national security strategy and foreign policy objectives. Specifically, it uses, as metrics, three of the six Joint functions defined in the United States Department of Defense (DOD) Joint Publication (JP) 3-0, Joint Operations: Command and Control, Movement and Maneuver, and Sustainment.

Major findings. India possesses a Joint, expeditionary capability, but only in a limited fashion. India will continue on the glide path of increasing their expeditionary capability, but must overcome some significant obstacles in order for their armed forces to become a regional and world actor. These obstacles include a bureaucratic defense structure mired in inter-service rivalries, as well as the country's political will of a remaining in a non-aligned stance ensuring a non-threatening posture within the region and the world

Recommendations: The United States should continue to support its growing strategic partner, India, but do so diplomatically on the premise that India is acting to protect its citizens and overseas economic assets. Overt military support of India's mission (within the context of the scenario in the main body of the monograph) may ignite issues with Pakistan and China; not something that this study would recommend at this time. At the strategic level there are two broad national security recommendations that the United States can do with regard to India. First, continue to build stronger ties with India and emphasize a strategic partnership or alliance. Second, the United States must take an immediate and lasting role in mediating Indo-Pakistani relations.

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It is 2012 - 2013. India has significant energy resource interests in Africa, specifically within the country of Mozambique. The Mozambique government is in collapse and is experiencing an internal revolution spurred by a number of reasons, most notably the inadequate distribution of wealth from the recent discovery of a staggering natural gas reserve in 2010. In order to pacify the violence, United Nations peacekeeping forces are deployed here under a UN Chapter VII mandated resolution, and have been here for about a year. A continuing resolution is necessary for the force to remain for more than 365 days. The vast majority of the UN Peacekeeping Force known as MOZAMPROFOR, or Mozambique Protective Force, is made from the contributing nations of India, China, and Pakistan, all of which have vested interests in the resource rich area. Operating in the most volatile region of Mozambique, India has suffered a disproportionate amount of casualties in relation to the other contributing nations. India has sought, time and again, to send additional troops, roughly a brigade sized element, in order to stabilize the situation and reduce their casualties, only to be denied by the UN Security Council. Pakistan currently occupies a rotating seat on the UN Security Council, and China maintains its permanent membership. As it stands for India, a perfect storm is brewing. The continuing UN resolution is up for vote and does not have the support of MOZAMPROFOR participants Pakistan and China. China, operating under its own interest, stands to veto any continuing UN efforts in Mozambique; India believes that Pakistan and China, through the UN, are working against its interests in the African region by not renewing the Chapter VII resolution.

Elsewhere in the world, the United States and the United Kingdom continue to roil in their fight against terrorism in Afghanistan and Iraq, with both places seeing resurgence in terrorism, insurgency and barbaric terrorist acts—locking their attention in the Middle East. Russia continues to back a rogue Iranian regime, and looks to partner with that regime in order to dominate Eastern Europe and the greater Caspian Sea region. As seen before, Russia and the United States have little or no direct interest in India's plight, and continue to be consumed elsewhere.

Aside from the Human suffering in Mozambique, India's direct interests include its roughly 1,000 citizens (outside of the military presence) living and working in Mozambique and investment in infrastructure totaling over $2 billion. Based on these circumstances, India will deploy an additional brigade to support its mission and weakened forces there, unilaterally if necessary, without the continuing Security Council resolution. It sees this mission as vital to its national interests, and its prestige; India looks to prevent human suffering for Afrikaners, save face on a global scale by demonstrating resolve to protect its citizens, and if given the opportunity, blacken the eyes of strategic competitors Pakistan and China. It sees the auspices of the previous UN mandate as a reason for its continued peace keeping presence in Mozambique.[1]

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[1] This scenario is in the realm of the possible. China and India are a number of states known as BRIC states or Brazil, Russia, India, and China with current interests in Africa. Trade with the BRIC states exceeds 11% of Africa's total trade and looks to double every decade. Source: Lokongo, Antoine Roger. "Brazil, Russia, India Join Africa Resources Grab." *University of Alberta China Institute*, http://www.uofaweb.ualberta.ca/chinainstitute/nav03.cfm? nav03=54243&nav02=43782&nav01=43092

India as a World Actor

The country of India continues to straddle the crossroads of East and West, much as it has done throughout the nineteenth and twentieth centuries. As the world's fastest growing population with an enormous capitalist appetite, India finds itself again on the world stage to be strategic partners with a global power such the United States in one instance, and yet, a global competitor interested in agreements with dubious cohorts such as Russia and China. Because of its increasing interests abroad, India must look internally and ask itself if an expeditionary capable force is in its national interests.

India, as an increasingly significant player within Asia, faces a myriad of threats, both traditional and emerging, externally, and from within the state. External to the state, India continues to face its traditional competitor Pakistan over the Kashmir region. Although significant because it has shaped India's foreign policy historically, as a stand-alone issue, Kashmir no longer dominates Indian strategy as it did previously. C. Raja Mohan, a strategic affairs editor at the Indian Express and a member of India's National Security Advisory Board stated, " The conflict has become less and less relevant to India's relations with the great powers, which has meant a corresponding willingness on New Delhi's part to work toward a solution."[2] However, because of a greater historical context, it is this study's belief that actions inside of Pakistan and its seemingly inherent instability, still plays a significant role in shaping India's strategic posturing.[3]

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[2] Mohan, C. Raja, "India and the Balance of Power", *Foreign Affairs* Jul/Aug 2006, vol. 85, p. 19

[3] India and Pakistan have fought three wars over the Kashmir region, and numerous conflicts. Perhaps the pinnacle of this dispute was the nuclear test exchanges in 1998 where both countries demonstrated their capability to detonate a nuclear weapon. Tensions between the two countries continue to ebb and flow today with Pakistani instability and India's belief that Pakistan is a terrorist exporter (detailed later)

Since 1947, India and Pakistan have gone to war three times; the *casus belli* being the Kashmir region. The latest significant clash between the two nations occurred in 2001 over Pakistani militant involvement in an attack on Indian parliament. In response, both countries converged forces along the Line of Control (LOC) posturing themselves again for another violent confrontation.[4] This continuing conflict shapes how the Indian Armed Forces employ, as well as how the Ministry of Defense formulates strategy and policy inputs at the national level on shaping India's foreign policy. So much so, that the Ministry of Defense paints Pakistan as "the single greatest threat to peace and stability in the region is posed by the combination of terrorism nurtured in and by Pakistan for its strategic objectives, and the ingrained adventurism of the Pakistani military motivated by its obsessive and compulsive hostility towards India. Virtually every terrorist act anywhere in the world today has a Pakistani fingerprint somewhere. It is the root and epicenter of international terrorism in the region and beyond."[5] In these two sentences, the Ministry of Defense demonstrates its overt belief that Pakistan is still India's primary opponent, and that India will continue to posture itself in response to Pakistan's adventurism and hostility. Not only does the rivalry with Pakistan over Kashmir cause an amount of instability for India, other external pressures add to challenges that the Government of India faces.

In addition to Kashmir, other external and internal pressures of instability include a growing democratic movement in Nepal, Islamic extremists within Bangladesh, threats of Sri Lankan civil war, a looming strategic rivalry with China, and the stresses of uncertainty with regards to Afghanistan and its effects on Pakistan stability.[6] Internally, India continues to face challenges of instability with active and passive insurgencies, and separatist movements within its borders.

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[4] Gable, Ed and James, Grant, Kashmir: Land of Dispute, *Time* 2002.

[5] Ministry of Defense, Government of India. Indian Armed Forces Overview http://mod.nic.in/aforces/body.htm

[6] Mohan, C. Raja, "India and the Balance of Power", *Foreign Affairs* Jul/Aug 2006, Vol. 85, p. 19

The internal threats to stability within India are numerous and vary in strength and location. These threats include a Maoist insurgency, the Communist Party of India-Maoist (CPI-M), near the Nepalese border, separatists in northeast India known as the National Socialist Council of Nagaland-Isak Muivah (NSCN-IM), and communal violence stemming from religious tensions between factions dominated by Hindu nationalists and Muslim protestors. These threats appear to be manageable for India, yet they often require the intervention of India's military forces to augment any police or paramilitary forces acting to counter the threat. Although the internal and external security threats may paint a security situation appearing capricious and threatening for India, through its emphasis of non-alignment and its ethnic and cultural diverse democracy, India continues to succeed in becoming a global economic, diplomatic, and military centerpiece, aside players like China, Russia and the United States, at the world's table.

India's Strategic and Global Posture

For this study to further ascertain India's position and future stance within Asia and the world, and its goals as a state, it must analyze India's military capabilities and intentions on how they will shape their future capabilities. *As a burgeoning strategic partner with the United States, if India is increasingly a stabilizing power within southern Asia, and is beginning to shift to an expeditionary approach to warfare / conflict resolution, then there are key components and subsequent metrics of Joint Operations that the Indian Armed Forces must execute in order to transform their force to one that meets the criteria of being expeditionary.*[7] In order to conduct this analysis, this study first analyzes India's official stated foreign policy and security strategy objectives and documents. It then address how India's military is building, adapting, and transforming itself to meet its stated national security strategy and foreign policy objectives.

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[7] This study is a contributor to a larger study being conducted by the Center for a New American Security (CNAS), *Project Asia '09*. *Project Asia '09* is a major review of American interests and objectives in the Asia-Pacific region [which] will culminate with a report laying out a way forward for the United States in Asia in 2009 and beyond.

Specifically, it uses, as metrics, three of the six Joint functions defined in the United States Department of Defense (DOD) Joint Publication (JP) 3-0, Joint Operations. The specific Joint functions used as metrics are Command and Control, Movement and Maneuver, and Sustainment.

United States Joint Publication 3-0 *Operations,* defined Command and Control (C2) as [encompassing] the exercise of authority and direction by a commander over assigned and attached forces in the accomplishment of the mission. The Movement and Maneuver function encompasses disposing Joint forces to conduct campaigns, major operations, and other contingencies by securing positional advantages before combat operations commence and by exploiting tactical success to achieve operational and strategic objectives. This function includes moving or deploying forces into an operational area and conducting maneuver to operational depths for offensive and defensive purposes. Finally, Sustainment is the provision of logistics and personnel services necessary to maintain and prolong operations until mission accomplishment. The focus of sustainment in Joint operations is to provide the JFC [Joint Force Commander] with the means to enable freedom of action and endurance and extend operational reach.[8]

This study examines India's defense expenditures in order to determine patterns of acquisition, dollars spent in relation to GDP, levels of modernization and transformation, and provide an overall assessment of their expenditure and acquisition process to determine if the processes are able to meet their national security objectives and that of an expeditionary force. Throughout the paper, this study continually assesses the vignette introduced at the beginning in order to test the Indian's expeditionary capability; determine when the Indian Armed Forces may have a credible, capable expeditionary force; and conclude the study with an overall assessment

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[8] Department of Defense, Joint Publication 3-0, Joint Operations (JP 3-0), 17 December 2006, p. III-29.

of the Indian forces in deploying, maneuvering, and sustaining themselves outside the country of India.

However difficult India may see the development of an expeditionary force while addressing a myriad of external and internal security concerns, India is the world's largest democracy, and is poised to become a key strategic partner with the United States if a strong and lasting bond is forged now. As the stabilizing force for the greater landmass of Southern Asia and having the primacy over the only ocean named after a country, the United States' and India's shared interest in a strategic partnership benefiting both countries, is inherent to a free, democratic India, and key to the United States' broader strategic outlook in the Asian region.[9]

India's Foreign Policy

India, at the historical cross roads between the west and the east, continues to hold a steadfast position that best serves their interests—the position of non-alignment. Retired Admiral Arun Prakash, former Indian Chief of the Naval Staff for the Indian Navy, noted in a recent United Services Indian Defense Journal,

> "It is an accepted tenet that in international relations there are neither permanent friends nor permanent enemies; only permanent interests. The maritime force we seek to create is, therefore, conceived, not so much on the basis of threats to our security, as on safeguarding our long term interests, taking into account consideration the capabilities existing in our neighbourhood and the potential challenges they could pose."[10]

For most of its varied history, India has maintained presence on the seas—specifically the Indian Ocean. Trade garnered over the seas from areas and cultures from around the region, invading and conquering forces, and the vast number of ports historically made India a natural bridge between the east and west, but also a more accessible target to those interested in

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[9] Burns, Nicholas R. "America's Strategic Opportunity with India," *Real Clear Politics* (October 2007)

[10] Prakash, Admiral Arun. "A Vision of India's Maritime Power in the 21st Century." *The Journal of the United Service Institution of India.* October-December 2006, p 558

conquering from those seas. This varied history of invaders coming to India from the sea, aids in setting the historical context of *how* India views its national security as a nation. Considering the historical context, and recalling the threats initially described in the introduction, India continues to have a reserved and judicious approach with its security policies in line with the country's reputation as peaceful nation.

India's foreign policy today is similar to the non-alignment policy drafted by India's first prime minister's administration. This policy led to India becoming the de facto the leader of the Non-Aligned Movement (NAM) during the 1960s. Membership now totals over one-hundred member states. This policy sought five key goals: the adoption by each member state of a policy based on the co-existence of states; seeking the support for movements of national independence; no members [may] claim membership of any historic multi-lateral alliance; any country with a military agreement with one of the Great Powers would only be considered for NAM membership if the pact had not been concluded in the context of the Great Power conflicts, and; that any military bases conceded to the Great Powers should not have been done so in the context of conflict.[11] This originating policy of non-alignment drove Indian policy for decades and was an effective tool as an initial foreign policy method for India to focus on its interests and objectives, and not necessarily its relationships with other nation-states. However, with the advent of the information age and the ending of the cold war, India has recognized the need to shift to a broader policy that ensures India more flexibility in international relations.

While non-alignment continues to be the official policy formulation method for the Indian Congress, the rapid alteration of the global security environment has driven India to adopt alternative methods of foreign policy outside those of traditional non-alignment. This shift in policy seeks a more pragmatic approach that allows India to pursue its two most immediate

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[11] Jane's Sentinel Country Risk Assessments. *India*, (17 October 2007 update) http://sentinel.janes.com/docs/sentinel/SASS_country.jsp?Prod_Name=SASS&Sent_Country=India&. Additionally, the Great Powers refer to the United States and Russia post World War II.

concerns, what Jane's Sentinel Country Risk Assessment termed as an effort to "improve

relations with the likes of China and the US for strategic gain, while also pursuing new

relationships based around needs such as energy provision or economic gain."[12] In essence, what

India seeks to develop is a policy that accelerates opportunities for strategic relationship building,

while maintaining an overarching non-alignment policy that allows India to seek opportunities

with states and regions based in their interests outside of the Great Powers. This diplomatic

strategy allows India to exercise negotiating flexibility amongst many players whose inherent

interests do not coincide, or in some instances, directly clash. Numerous examples exist that

demonstrate this policy alignment. For example, in 2005 India maintained a warm relationship

with Tehran in order to gain energy resources, while simultaneously entering into an agreement

with the United States on full civil nuclear energy cooperation. This study will term this approach

strategic engagement. As a result, India will need to consider an expeditionary capable military

force that is operationally sound in supporting its burgeoning influence and interests abroad. By

understanding India's strategic engagement foreign policy approach, it is critical to understand

and examine its stated National Security Objectives and determine if they are aligned with its

foreign policy strategy.

India's Ministry of Defense stated its principle task is obtaining "policy directions of the

Government an all defense and security related matters and communicate them for

implementation to the Services Headquarters, Inter-Service Organizations, Production

Establishments and Research and Development Organizations."[13] To meet its policy directions,

India has seven overarching National Security Objectives. First and foremost, the government of

India has the responsibility of defending its borders as defined by law and enshrined in the

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[12] Jane's Sentinel Country Risk Assessments. *India*, (17 October 2007 update)

[13] Ministry of Defense, Government of India. Indian Armed Forces Overview
http://mod.nic.in/aforces/body.htm

Constitution. Second, it must protect the lives and property of it citizens against war, terrorist, nuclear threats and militant activities. Thirdly, India has the responsibility of protecting the country from instability and religious and other forms of radicalism and extremism emanating from neighboring states. The government must secure the country against the use or the threat of use of weapons of mass destruction. Fifth, India shall promote the development of material, equipment, and technologies that have a bearing on India's security, particularly its defense preparedness through indigenous research, development and production, inter-alia to overcome restrictions on the transfer of such items. The sixth National Security Objective is to promote further cooperation and understanding with neighboring countries and implementing mutually agreed confidence-building measures; and finally the Government of India must pursue security and strategic dialogues with major powers and key partners.[14] Upon initial analysis, India's stated National Security Objectives appear to be strictly defensive in nature—nested with their foreign policy strategy of non-alignment, and pursuit of strategic relationships that will benefit their energy provision and economic prosperity. However, there is appropriate ambiguous flexibility within some of the specific objectives. For example, in objectives three and five there are no words expressly limiting Indian Armed Forces to operating within the sovereign boundaries of India. Implied within these objectives, this study argues, is that India may need to defend its influence and sovereignty beyond its borders. To determine the Indian's expeditionary capability, this study will first define expeditionary, using an American military definition, and compare that to how the Indian Armed Forces may define it. This study uses an American definition of expeditionary because the United States military understands expeditionary operations, what it takes to conduct and support these operations, and US forces are arguably the

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[14] Government of India, Ministry of Defense, Indian Armed Forces Overview
http://mod.nic.in/aforces/body.htm

best, or on par with the best nations in the world with regard to conducting expeditionary operations.

A cornerstone of United States defense doctrine is the ability of its armed forces to conduct expeditionary operations. The United States defines an Expeditionary Force in United States DoD Joint Publication 1-02 (*DoD Dictionary of Military and Associated Terms*), as "an armed force organized to accomplish a specific objective in a foreign country"[15]. Research for this study located an Indian definition of expeditionary warfare, although found it only utilizing nuanced phrases, not expressly the term expeditionary. One phrase used to define expeditionary is preventive deployment. Lieutenant General Satish Nambiar (retired), Member Secretary of the Indian United Services Institution, a think tank based in New Delhi recently wrote in *USI Journal*,

> "the mechanism of preventive deployment would appear to be a useful tool. . .in extreme cases even to the extent of threatening use of force to put pressure on what are seen as uncooperative governments. . . I am of the view that we should be pro-active on this aspect as we may well be called upon to take the lead role in the immediate and extended neighbourhood."[16]

In dissecting this quote, it is not entirely evident that General Nambiar is calling for the creation of an expeditionary force, however, what he is calling for is to develop the capability to deploy a force able in order to counter threats within the region. In the article, General Nambiar delineates this capability as only being conducted under the auspices of a United Nations (UN) mandate—such as Chapter VII of the UN charter that authorizes the use of force against a state, which has shown or is showing overt aggression towards another state. If taken along a more logical extension, he implies a capability to use force against a state using its sovereignty as an

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[15] Department of Defense, Joint Publication 1-02, *Dictionary of Military and Associated Terms* (JP 1-02), p. 193, and DoD refers to Department of Defense in all cases unless otherwise noted. Joint Publication 3-0 details the United States employment of forces abroad on p. xi.

[16] Numbiar, Lieutenant General Satish. "Robust Peacekeeping Operations, Rapid Deployment Capability for the UN: An Indian Perspective," ." *The Journal of the United Service Institution of India.* October-December 2006 p.526.

excuse for the mass execution of human life.[17] So, if senior officials within the Ministry of Defense believe that an expeditionary capability is necessary in order to execute a UN mandated mission, then it is feasible to argue that India may develop a capability to execute this UN mission, and develop this force so that it may operate unilaterally.

Lieutenant General Satish makes the argument that India believes a preventive deployment capability is required of certain UN missions. India, currently, is the number two contributor to UN forces in the world. [18] Based on these two planning factors, it appears that India will acquire and build the capability to conduct expeditionary operations while with the ability to self-sustain. To understand how India can execute expeditionary operations, and support a force during deployment, employment and sustainment, there are key metrics that can be used as indicators of this capability. This section delineates and defines the key Joint Functions as they pertain to American doctrine and how this study may apply them to the Indian Armed Forces.

Conducting Joint and expeditionary operations demands a great deal of capability for any armed forces. As mentioned, the United States maintains the capability of strategic, unilateral, and expeditionary operations in order to command and control, deploy, employ, and sustain multiple expeditions across the globe simultaneously. India does not currently possess this capability, and this study does not posit that they seek to attain a force with this capability. However, United States doctrine offers sound metrics upon which this study can use in order to ascertain India's capability. The United States Department of Defense terms these functions as Joint functions. The six Joint functions are command and control, intelligence, fires, movement

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[17] Numbiar, Lieutenant General Satish. "Robust Peacekeeping Operations, Rapid Deployment Capability for the UN: An Indian Perspective," p.526. General Nambiar used the specific phrase, "deploying military capacities for **peacekeeping** and **enforcement** has proved to be a valuable tool in ending wars and helping to secure states in their aftermath." This study took this statement to mean any one of a possible number of scenarios, one of which may be to intervene in a genocidal situation.

[18] Embassy of India, "A History of Indian Participation in UN Peacekeeping Operations, http://www.indianembassy.org/policy/Peace_Keeping/history_india_UN_peace_keeping.htm.

and maneuver, protection, and sustainment. Three of these functions, while critical for Joint operations, are less suitable for measuring the expeditionary capability of the armed forces. The three least suitable are intelligence, fires, and protection for one significant reason; all armed forces for a nation are generally able to conduct these operations to varying degrees. What measures a military's true ability to conduct expeditionary operations is how that military controls its organization, moves itself from one location to another, and while in the process of deploying and employing its forces, supports itself simultaneously outside of the homeland's established infrastructure. The three Joint functions that this study will use to measure India's expeditionary capability are command and control (C2), movement and maneuver, and sustainment.

The Indian Expeditionary Armed Forces

What are the Indian Armed Forces required to do in order to create an expeditionary force? The method this study determines this is by utilizing the three Joint functions defined in the introduction: Command and Control, Movement and Maneuver, and Sustainment. This study initially determined that India does not have the desire to attain an expeditionary capability equivalent to the United States—the capability of strategic, unilateral, expeditionary able force that can deploy, employ, and sustain multiple expeditions across the globe simultaneously.[19] However, this study analyzes whether India has the force structure, and wherewithal to conduct expeditionary operations in order to defend its interests either regionally, or globally. This section further refines the three Joint functions as they pertain to India, determines the capabilities and contributions of each branch of the Indian Armed Forces, the Army, Navy and Air Force with regard to expeditionary operations, and the capabilities each force brings to a Joint expeditionary operation.

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[19] Statement is based on India's policies of non-alignment, being a strictly defensive oriented state, and perceptions of India being a peaceful nation.

The expanded definition of Command and Control, the first Joint function, as it pertains to the Indian Armed Forces is the ability of a force commander to effectively order / manage his subordinate formations, when at least one component is outside of India's infrastructure, where a significant span of reach is required. The second Joint function, Movement and Maneuver, is the "related tasks and systems that move forces to achieve a position of advantage in relation to the enemy.[20] Additionally, the focus of this definition will be on the movement portion—as it pertains to deployment related requirements, and not maneuver. This study is intentionally not focused on how India will tactically or operationally maneuvers its forces during a campaign, rather, it seeks to in determine if the Indian Armed Forces have the capability to deploy into a theater of operations, employ their force, and sustain themselves during a campaign. The final Joint function, Sustainment, is similar to the concept presented in United States Army Field Manual, FM 4-0 *Combat Service Support* provided an excellent description necessary to conduct expeditionary operations: "involves the operational positioning and efficient use of all available CSS [Combat Service Support] assets and capabilities, from the industrial base to the soldier in the field."[21] A nation's armed forces must have the ability to command and control, move and maneuver, and sustain themselves within their sovereign borders. However, in order to conduct expeditionary operations, extensively more assets are required to conduct the same operations over a greater distance. Power projection, command and control, and the ability to sustain it, becomes increasingly difficult, yet also enables a nation to broaden its influence and interests. This study next analyzes India's current force structure in order to see if this force structure can adequately support expeditionary operations now.

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[20] United States Department of Defense, Department of the Army Field Manual 3-0, Operations (FM 3-0) (Draft), Post DRAG p. 4-3.

[21] United States Department of Defense, Department of the Army Field Manual (FM) 4-0, p. 3-17. CSS as a term can be used interchangeably with sustainment.

India's armed forces total just over 1.6 million personnel to include the Army, Navy, Air Force, and both reserve and active components. Their active component strength forces total approximately 1.5 million; with their Army containing 1.1 million active forces and the only reserve forces of 800,000 personnel. The Indian Air Force numbers about 161,000 personnel, all active duty. The Indian Navy has 55,000 active duty personnel including sailors and marines. [22] Although India has a significant paramilitary force of 12 separate agencies, this study will not examine those forces because they are seen as general-purpose, domestic forces that operate within the borders of India or in the immediate vicinity. These forces' roles consist of constabulary forces—counterinsurgency, border enforcement forces, anti-terrorist forces, and very important person (VIP) forces within India or Kashmir.[23] Undoubtedly, these Para-military forces play a significant role in India's overall security policy and execution; however, they do not contribute directly to the study of India developing an expeditionary capability. This study will solely focus on the Indian Army, Air Force, and Navy. To execute this expeditionary capability, this study will investigate recent broad defense spending, procurement, and development India is currently undertaking.

India's defense budget is $21.98 Billion dollars annually and ranks tenth in the world for total defense expenditures.[24] This figure is based upon India's acknowledged expenditures for fiscal year 2006 to 2007. In addition to the defense budget, procurement expenditure and importation of defense items total $5.3 and $9.0 Billion, respectively. Comparatively, the five permanent members of the Security Council outspend India in defense expenditures, but India also appropriates more money to defense than nations such as Israel, Turkey, and Pakistan.

[22] Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/asia/india/organzn/index.html.

[23] Jane's Sentinel Country Risk Assessments. *India*, (17 October 2007 update)

[24] Center for Defense Information, The, *The Defense Monitor*, "Military Spending: CDI Analysts Take a Closer Look at Defense Budgets," March/April 2006 p. 2. and Jane's Sentinel Country Risk Assessments. *India*, (17 October 2007 update)

Military Spending:
2004-2005 Worldwide Expenditures

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ABOUT THIS CHART:

Most of the data used in the military spending graph shown here was obtained from the most recent edition of the *Stockholm International Peace Research Institute (SIPRI) Yearbook (2005)* and depicts an American defense budget that composes nearly half of total worldwide defense expenditures for that year. However, data for the worldwide expenditures and the figure used for U.S. military spending were obtained from the 2005 U.S. Defense Budget calculated by Office of Management and Budget, and these figures do not reflect an additional $25 billion appropriated to the Defense Department in 2005 for the wars in Iraq and Afghanistan. With that amount *included*, the total U.S. military spending would exceed the total defense spending by the rest of the world combined.
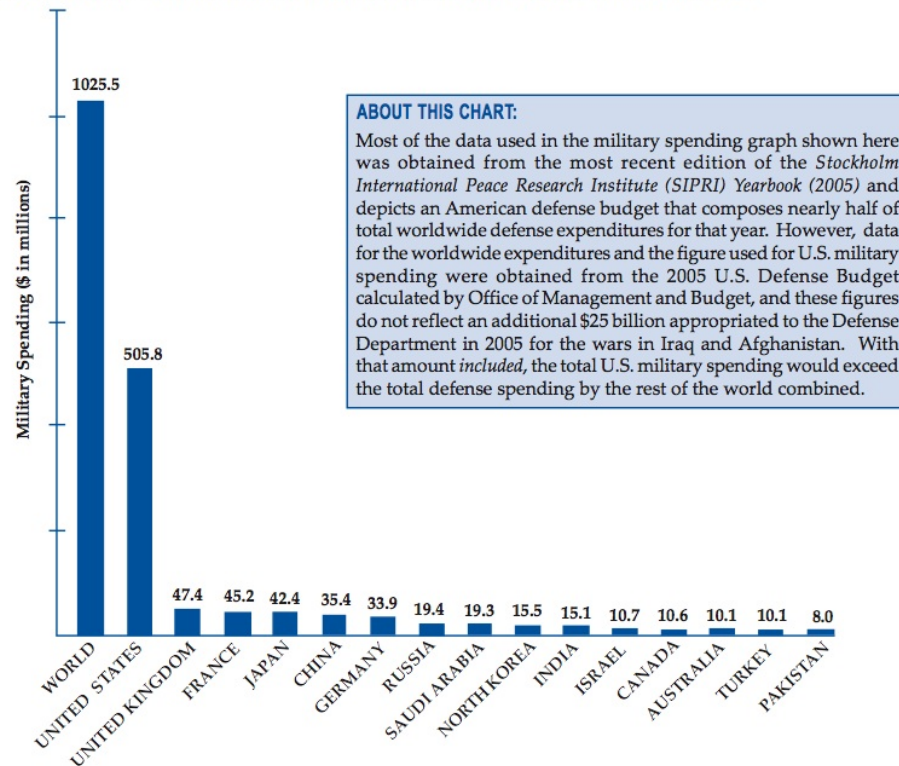
Figure 1 courtesy of CDI Defense monitor, April 2006[25]

Estimates for the next five years for procurement and modernization of India's Armed Forces will total over $45 Billion. As an important note, none of these figures include India's spending on any portion of its nuclear related defense programs; these expenditures only reflect spending on conventional weapon systems and related defense budgetary programs such as training, recruitment, sustainment, and etcetera. Overall, India's budget contributions to defense spending seem adequate upon initial analysis, however, defense procurement in India has traditionally been slow in developing and procuring weapon systems for its armed forces.[26]

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[25] Center for Defense Information, The, *The Defense Monitor*, "Military Spending: CDI Analysts Take a Closer Look at Defense Budgets," March/April 2006. Author's note: Military spending on the x axis of the worldwide expenditures chart should be in Billions of dollars, not millions.

[26] Jane's Sentinel Country Risk Assessments. *India*, (17 October 2007 update)

India's procurement policy and weapons production, overall, appears to be inefficient, and not able to rapidly respond to changing requirements that the Indian armed forces may require. Jane's Sentinel Security Assessment stated,

> "India's defense production system, while indubitably effective in provision of several thousands of items of ammunition, vehicles, power plants, communications apparatus and general stores, appears unable to develop major high-technology equipment (tanks, aircraft, artillery pieces) to the production state in a timely and cost-effective manner . . . while operational capabilities of the armed forces will continue to suffer from disruption in the flow of major combat equipment."[27]

India, however, continues to make strides in its policies with regards to procurement and production of defense related materiel. The Indian Defense Procurement Policy of 2005 (DPP 2005) seeks to correct the maligned process of materiel acquisition, while also increasing the efficiency of its internal production capability through partnerships with other countries and defense production companies. *Military Technology* summarized, "The DPP 2005 is a watershed document which in one stroke aims to bring in transparency, remove ambiguity, exact the maximum for the domestic industry and speed up procurement."[28] Although India continues to face a democratically influenced bureaucracy to transform its production capability into something more efficient, the procurement actions seem more streamlined as a result of the DPP 2005, *Military Technology continued*, "From being called one of the slowest markets in the world, India has over the last couple of years acquired the reputation as one of the most significant accessible defence markets in the world. India has among the largest defence budgets in the Asia-Pacific region; total defence imports now exceed an estimated $15 billion per year and are expected to grow to $50 billion by 2015."[29]

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[27] Jane's Sentinel Country Risk Assessments. *India*, (17 October 2007 update)

[28] Ahmedullah, Mohammed. *Military Technology,* "India's New Defense Procurement Procedures and Offsets Policy," February 2006, p. 22.

[29] Ahmedullah, Mohammed. *Military Technology,* "India's New Defense Procurement Procedures and Offsets Policy," February 2006, p. 22. Author's note: different sources on India's defense spending

An overall assessment of India's development and procurement capability is positive. Although the Indian system of procurement has been stymied in the past by scandalous and questionable contracting, with the new DPP rules in place, and a better understanding of international arms procurement, India will continue to increase its armed forces' capabilities in support of a broader defense posture. Likewise, India's domestic development capability is showing improvements in its capability to develop homegrown weapon systems as alternatives to foreign procured systems. However, India continues to struggle with the ability to mass produce weapons systems that are effective and reliable in comparison to Soviet and American counterparts. India's self imposed limitation of no more than 3% of Gross Domestic Product (GDP) spending on military defense may end up hurting India in the long run when competitors such as China have no self-imposed spending limits. As an initial approach, this study has provided a brief overview of India's armed forces, and their procurement and development posture. It will now study the three Joint functions, and assess each services' procurement and development activities in order to determine the how each service supports the Joint function and identify whether or not each service is seeking to develop and build an expeditionary capability.

Command and Control

Perhaps the largest contributor for an expeditionary command and control of its indigenous fighting forces, the Indian Air Force is well on its way in exercising command and control of Indian forces, regardless of location, and is on a continuing development path that will increase its ability significantly. The Indian Air Force Chief Marshall Fali Homi Major recently summed up the vision of the Indian Air Force,

> "Our vision is to achieve strategic reach, enabling our combat and support forces to deploy rapidly within the strategic boundaries that are in consonance with

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and procurements vary widely as evidenced by Figure 1. This study attempted to include multiple sources of information, knowingly, informing the readers that the disparity exists in the literature.

India's national interests . . . [the IAF of the future] will increasingly be called upon to ensure the inviolability of India's enhanced strategic borders that now extend from the Straits of Hormuz to the Straits of Malacca and includes the Central Asian Region."[30]

Adjacent to this vision, the Airborne Warning and Control System (AWACS) is a capability equipped with sensor and communication systems specifically geared toward early warning and battle command functions, to include tracking of both enemy and friendly forces.[31] Currently, India is in a Joint acquisition process with Israel that began in 2004 for three Phalcon early warning systems mounted on a Russian IL-76 platform. The picture attached is a system similar to that of the Indian AWACS courtesy Simon Brooke, United Kingdom. Delivery was scheduled to begin in mid-2007 through the end of the year 2007, but as of the writing of this study, confirmed delivery of the initial IL-76 AWACS is not known.[32] However, with this enabler, India will have the capability to command its forces, to include air, sea, and ground elements, with extensive reach beyond its borders. Although its intended primary purpose may have initially been to counter Pakistani aggression or instability, an AWACS platform offers significantly more capabilities than air interdiction and early warning. Coupled with adequate movement and sustainment functions, the AWACS capability can offer India ample opportunity to command and control not only its air forces, but also other Joint forces needed to protect its interests internal and external to its borders. As an enabler to AWACS and Command and Control efforts, Network Centric

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[30] "Indian Air Force turns 75, Eyes Ambitious Modernisation", *The Times of India*, October 8, 2007, http://timesofindia.indiatimes.com/articleshow/msid-2439205,prtpage-1.cms. (accessed 1 November 2007)

[31] Air Force Technology. http://www.airforce-technology.com/glossary/airborne-warning-and-control-system.html (accessed 13 Jan 2008)

[32] Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/asia/india/organzn/index.html (accessed 16 October 2007)

Operations or Warfare (NCO or NCW) provide a tool to enhance command and control function across the Joint forces.

United States Transportation Command (USTRANSCOM), whose mission is to provide air, land, and sea transportation for the Department of Defense, both in time of peace and time of war, utilizes a version of Net Centric Operations, dubbed Net-Centric Deployed Distribution Process Air Component Operability, to enable its command and control functionality. The focus of which is to "improve command and control visibility of deployed distribution process air component missions through an improved automated information exchange between AMC and the Joint Force Air Component Command (JFACC) C2 [command and control] systems.[33] Noticing the benefits of NCO from the United States perspective, India continues to develop its NCO capability within its Air Force, but also within all of its Joint forces as well. Although in it's infancy with regard to development, NCO will enable India's Air Force, and in a larger context, its Joint forces to better track, re-direct, command, and control its Joint Forces and their required assets—whether those forces will execute expeditionary or non-expeditionary operations.

India's Navy, by its general nature, is expeditionary. India sees the Indian Ocean as a national interest, and is proud that their Navy is able to navigate these waters, for the most part, unchallenged. As mentioned previously with the Indian Air Force and Army, India, and especially its Navy, sees itself as a global strategic power. *Military Periscope* described it in this way, "India adopted a new naval doctrine in 2004 with a renewed emphasis on littoral warfare and power projection into the Arabian Gulf. The focus on Navy development has thus shifted

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[33] United States Department of Defense, US Transportation Command (USTRANSCOM) website http://www.transcom.mil/organization.cfm (accessed 28 Jan 08) and US TRANSCOM Handbook 60-2 *Technology Transformation Plan*, December 2005 p. 43.

toward amphibious and expeditionary capabilities."[34] In order to command and control these

forces, the Indian Navy has also demonstrated an interest in Network Centric Operations (NCO)

similar to those of the Army. This capability, on a Joint scale, will at a minimum enable better

command and control of Joint forces, and at best, shift how India employs its forces during

expeditions. Admiral Arun Prakash, India's Chief of Naval Staff in 2005, emphasized the

importance of NCO in an address to multiple Indian think tanks at a NCO symposium,

> "Network Centric Operations or NCO, relies on computer processing power and
> networked communications technology to provide a shared awareness of the
> battle space. This shared awareness increases synergy for ***command and control***,
> resulting in superior decision-making, and the ability to coordinate complex
> military operations ***over long distances***, with the ultimate aim of obtaining an
> overwhelming military advantage."[35]

Admiral Prakash's comments, as well as Air Marshall Major's (IAF) comments reflect the Indian

Armed Forces emphasis on a Joint operable command and control system, that this study argues

is critical for a force to operate expeditiously, and remain viable in the 21st century. India's

Army, the force that will adopt Network Centric Operations (NCO) first—contributes most to

command and control of forces operating on land.

Perhaps the most significant aspect of the Indian Army's ability to command and control

itself and Joint forces is the interest and development of NCO. NCO is seen as a program that

will improve all of the nation's forces command and control capabilities—specifically in the

ability to conduct Joint operations. The Army will be the first Indian force to develop and

implement the benefits of NCO, followed by the Air Force and the Navy. NCO rely heavily on a

communication and computer backbone. This backbone for the Indian Armed Forces NCO is a

shared development between a private Indian firm, and Lockheed Martin, a leading defense

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[34] Military Periscope, *India*, (1 April 2007 update)
http://www.militaryperiscope.com/nations/asia/india/navy/index.html.

[35] India Defense Consultants, "Network-Centric Warfare for India," comments from speech given
by Admiral Arun Prakash, http://www.indiadefence.com/NCW%20Seminar.htm.

contractor based in the United States. NCO will enable the Indian Forces, like those of the

United States to more effectively command and control units, and aid in designing the types of

forces required for all operations, to include those expeditionary in nature. India Defence.com, a

leading Indian Defense reporting site stated,

> "this lab will develop, demonstrate and experiment with emerging network-
> enabled capabilities and applications . . .   The Gurgaon facility on the edge of the
> [Indian] national capital will help defence and homeland security customers fight
> terror and tackle issues like disasters in an integrated manner by suggesting how
> the resources can be optimally deployed . .combin[ing] what is also called C4ISR
> capabilities - command, control, communications, computers, intelligence,
> surveillance and reconnaissance"[36]

Functionally, these C4ISR capabilities enable a force to more effectively operate Jointly,

increasing the opportunity of a force to capitalize on the synergy inherent within Joint operations.

Relatively new for an Indian Force, but as the Indian's have observed with the United States,

Joint Operations are a mandatory practice for units and forces as they prepare for war.

Around the year 2004, the Indian Army began to question its overall strategy and war-

fighting doctrine. This burgeoning strategy began to be known as "Cold Start". Bharat-Rakshak,

a leading defense consortium of Indian Military websites said, "Cold Start calls for rapid

deployment of "Integrated Battle Groups" comprising of elements of Army, Air Force, and if

need be, Navy, to conduct high-intensity operations. These battle groups could be used

individually for limited operations, or in conjunction for operations of greater scale."[37]

Originally intended to self-limit the Indians from an overwhelming defeat of Pakistan that could

trigger the Pakistanis into a nuclear exchange, this emerging doctrine could aptly fit into a

strategy that supports India's need for a command and control element of an expeditionary force.

However, no other Indian service has agreed to this strategy, and the Indian Army faces a difficult

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[36] India-Defence.com, "Wipro, Lockheed Martin set up Net Centric Warfare Innovation Center in Guragon" August 07, http://www.india-defence.com/reports-3487

[37] Patel, Y.I. "Dig Vijay to Divya Astra – a Paradigm Shift in the Indian Army's Doctrine." Bharat- Rakshak, http://www.bharat-rakshak.com/MONITOR/ISSUE6-6/patel.html

battle in convincing the other services, and its political masters that this is the correct strategy to adopt.

Interestingly, India continues at its attempts to build and man a Joint headquarters. This headquarters, however, will not serve as a deployable headquarters able to command and control forces. Its function would be similar to that of the United States Joint Forces Command (JFCOM) in development of future Joint concepts and doctrine. *The Hindu*, India's national newspaper noted: "The other major item on the DCG [Defence Consultative Group] agenda was the setting up of a joint headquarters. There would not be any real time troops or aircraft or naval warships that would be controlled from the headquarters; it would rather function with about a hundred personnel on joint deployment strategies."[38] Research indicated that the Indian Armed Forces seem to have the will to create a Joint headquarters with the capacity to command and control a force with expeditionary capabilities. Unfortunately, due to India's insistence on a policy of Non-Alignment, its commitment to be a non-threatening state, and the non-existence of a unified defense command structure, it appears that India will be unable to field and man such a headquarters in the next five to ten years, unless an existential threat would force this development. For the United States, however, Joint interoperability is a critical facet of our defense doctrine, and one that India may be wise to emulate.

For the United States military, the Goldwater-Nichols Department of Defense Reorganization Act of 1986 strengthened the Command and Control Joint function by mandating Joint exercises in order to better prepare the military and nation for war. The Act stated, "the participation of the combat support agencies in Joint training exercises to the extent necessary to ensure that those agencies are capable of performing their support missions with respect to a war

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[38] The Hindu. "Training on Hawks for IAF Pilots" http://www.hinduonnet.com/2004/04/16/stories/ 2004041601651500.htm (accessed 17 Mar 2008).

or threat to national security."[39] The authors of this act understood that Joint operability was a key facet for a nation's military to perform as effectively as possible, while gaining understanding of the other military components. India's Armed Forces, following a similar trajectory, also seem to understand the inherent benefit of Joint interoperability contributing to effective command and control. Global Security.org recently observed,

> "India will hold a large-scale joint Army-Air Force combat exercise in March [2008] in front of an international audience, the Times of India said on Wednesday, quoting sources in the country's Defense Ministry. . . the exercise will be the largest in India's history, with the country's entire arsenal of sophisticated weapon systems and platforms, reconnaissance and command and control systems coming into play in a bid to dazzle the foreign observers, according to the paper. . . the Army and Armed Forces will unleash the entire range in their inventories, ranging from T-90S main-battle tanks and Smerch multiple-launch rocket systems to advanced Sukhoi-30MKI fighter jets and Heron UAVs (unmanned aerial vehicles)."[40]

India's Armed Forces seem to understand the importance of command and control as a function of Joint interdependence. Not only because they desire to demonstrate this capability to the world, but the preparation, exercises, rehearsals and detailed planning in anticipation of such an event forces India's Armed Forces to cross-communicate with each other habitually, in order to demonstrate their burgeoning capabilities and desires believably.

India's ability to command and control a Joint expedition appears to be tenuous at best. India can execute the scenario described at the beginning of the study, however, only with a limited ability due to a number of reasons. Although all systems seem to be in place, or within a procurement program supporting the command and control of Joint forces, India has obstacles to overcome in support of reaching a vision of being truly expeditionary. Service rivalries, Joint

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[39] Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law 99-43, 99th Congress, p. 31.

[40] Global Security.org, *India to flex muscle in front of foreign observers*, http://www.globalsecurity.org/wmd/library/news/india/2008/india-080123-rianovosti01.htm (accessed 4 Feb 08).

capable headquarters, and a lack of a single defense command element over Indian Armed Forces are some of those major obstacles. As a recommendation, India can undertake some initiatives that would bolster its ability to command and control expeditionary operations. These recommendations are to empower the Ministry of Defense (MoD) or similar organization, to have authority over all Joint Forces and operations, and establish a Standing Joint Force Headquarters (SJFHQ).   Inter-service rivalries remain culturally difficult to overcome, but establishing a strong MoD, a SJFHQ, and expanding requirements for Joint cross-training with sister services like Goldwater-Nichols did, will set a path forward for India to overcome these rivalries as well as reinforce the critical Joint function of command and control. As a nation with growing influence throughout its region and arguably the world, India appears to understand pieces of the role its armed forces will play in future relations and influence within the region. In order for them to fully capitalize on this role and a growing expeditionary capability, India must additionally have the capability to power project their forces to areas of national interest.

Movement and Maneuver

The ability of a nation to project forces outside of its borders is a significant shift in capability than for a nation whose forces are solely designed to fight a land war close to an opponent—India's traditional posture. Intrinsically, movement with regard to expeditionary operations is the ability to power project forces.

In India's case, the Indian Air Force currently possesses a limited organic capability to move its forces by air. Militarily, India has a number of aircraft that can be used in multiple roles varying from intra-theater lift and delivery options, as well as aircraft that can be employed for strategic mobility, or inter-theater lift. The Antonov built AN-32 is a short to medium range aircraft designed to carry up to 14,770 pounds, or 42 paratroopers, and can be flown at high altitudes and landed on unimproved runways, allowing the

Indian Armed Forces the ability to move minimal amounts of forces or equipment relatively close to the operations area. India currently posses roughly 100 of these aircraft, and plans to upgrade its existing fleet with better communications and guidance suites, engine upgrades to extend life and flight distances out to 2,000 miles, and better maintenance systems designed to extend the aircrafts lifespan 15 years. [41] Pictured on the previous page is the AN-32, courtesy ANTONOV ATSC ©.

The current long range strategic aircraft for the Indian Air Force is the Ilyushin built IL-76. The IL-76's role, like the AN-32, is again, a multi-role transport aircraft with the ability to transport appreciably more equipment and personnel over greater distances. Capabilities of the IL-76 are similar to that of the C-141 Starlifter, formerly in the United States inventory. The IL-76, of which the Indian Air Force has 30, can carry up to 140 passengers or over 50 tons, with a maximum operational range limit of 4,847 miles.[42] Pictured is a civilian version of the IL-76 transport aircraft courtesy of the GNU Free Documentation License. With this load classification and with the ability to fly a distance upwards of 5,000 miles, the IL-76 is able to transport personnel and equipment from the southern portions of India to Mozambique in support of operations there, covering roughly 3,500 miles in one non-stop flight. This capability demonstrates India's interest, if not ability, to transport forces and equipment quickly to an area of interest. However, India's modernization and procurement program for transport aircraft continues to vary in support of its security strategy.

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[41] Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/asia/india/organzn/index.html (accessed 16 October 2007)

[42] Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/asia/india/organzn/index.html (accessed 16 October 2007)

India's latest and most significant procurement of transport aircraft is the purchase of the ubiquitous Lockheed Martin C-130J Aircraft. India is currently on contract with the United States to procure six C-130J aircraft, with the option to buy six more. "India has requested six Lockheed Martin [LMT] C-130J Air Force baseline aircraft, including Air Force baseline equipment, spare engines, missile waning systems, advanced radar warning receivers, counter-measures, special operations suites radios, and communications security equipment."[43] The C-130J has the capability to transport 39,917 pounds (~20 tons) a distance of over 3,100 miles.[44] Normally considered an intra-theater transport aircraft in the United States, the capabilities the C-130J brings, significantly increase the possibility of India utilizing the aircraft as a strategic asset (photo left courtesy US Defense Department). *Military Periscope* described India's roles and functionality as being "used for special operations and strategic airlift."[45] Although Indian

mainland support directly to operations in Mozambique would more than likely not be possible at this distance for the C-130J, if India were to establish an Intermediate Staging Base (ISB), the C-130J could be used as a platform to power project forces in support of expeditionary operations within Africa. Military aircraft, overall, offer a nation the capability to power project and sustain forces, however, civilian air fleets enable movement while freeing up military aircraft for other mission critical requirements.

In addition to the procurement of strictly military aircraft to support it s operations, commercial industry in India has the ability to support expeditionary operations as well. Air India—a government nationalized entity—is able to contribute to the movement and sustainment

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[43] Defense Daily International. "India Requests More Than $1 Billion for C-130J Aircraft", (Abstract Summary), Potomac, June 1, 2007, volume 8, issue 22.

[44] Global security.org, C-130J Specifications and Performance, http://www.globalsecurity.org/military/systems/aircraft/c-130j-specs.htm (accessed 15 January 2008).

[45] Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/asia/india/airforce/index.html

of forces similar to that of the Civil Reserve Air Fleet (CRAF) in the United States. The CRAF

for the United States is a program supporting the Department of Defense movement requirements.

Air Force Link, the official US Air Force web site, described CRAF as, "Selected aircraft from

U.S. airlines, contractually committed to CRAF, support Department of Defense airlift

requirements in emergencies when the need for airlift exceeds the capability of military

aircraft."[46] With regard to India, this study did not locate a similar agreement between civil

owned air fleets and the Ministry of Defense. However, Air India is the nationalized, state-run

airline for India with significant numbers of large passenger aircraft able to transport hundreds of

personnel in a single lift. Based on these facts, this study believes that an agreement between

Ministries of Defense and Civil Aviation would allow state-owned Air India to be used in a

situation concerning national interests. The aircraft in Air India's inventory consists of over 100

aircraft with an expected delivery of an additional 68 Boeing 777-200LR able to seat 238

passengers each.[47] The capability of Air India, coupled with the wholly owned and operated

military fleet, give India at minimum, options for movement, and at best, the ability to power

project personnel in support of expeditionary operations.

Although the Air Force and in some limited capacity a civil fleet contribute to power

projection of forces by air lifting personnel and cargo, the bulk of the transport mission will be

executed by Naval forces steaming to the area of operation, carrying with them the vast majority

of heavy equipment and supplies supporting mission execution. Unfortunately, India's Navy has

obstacles to overcome—most notably stemming from inside the Indian defense establishment.

The largest hindrance of the Indian Armed Forces modernization and transformation is

the Indian's government legal restrictions on maintaining defense expenditures below 3 percent

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[46] Air Force Link, Official Website of the United States Air Force, *Civil Reserve Air Fleet* (CRAF), http://www.af.mil/factsheets/factsheet.asp?id=173

[47] Goliath Business Knowledge on Demand, Company Watch – Boeing, http://goliath.ecnext.com/coms2/gi_0199-6846555/Company-Watch-Boeing-Company-overview.html

of gross domestic product (GDP). The Navy, having the smallest budget of the Indian Armed

Forces, must be especially adept at modernizing its fleet.[48] India currently has one aircraft

carrier, with 2 additional in various states of repair and construction, but realizes the need to have

additional carriers in order to maintain its significant sea presence in Indian Ocean. Jane's

Sentinel summarized it,

> "the desired posture of the IN (Indian Navy] is ***power projection***, an aspiration
> not only pushed hard by the navy itself but endorsed in principle by governments
> of all political persuasions and enthusiastically supported by the population at
> large. Senior IN officers envisage that the service will in time be a strategic force,
> centered around two aircraft carrier battle groups, nuclear-powered submarines
> and strategic bomber/maritime strike aircraft, playing a dominant role in the
> Indian Ocean region. Its future role and power projection capabilities,
> particularly with regard to China will however be determined by its acquisition of
> strategic assets - and thus its budget allocation."[49]

(INS *Viraat* pictured courtesy United States Navy.)

Within these Carrier strike groups there are a varying degrees

of ships that can support expeditionary operations. The ships

that specifically support the Joint function of movement and

maneuver for the Indian Navy, include transport ships, aircraft

carriers, amphibious landing ships, tank landing ships that carry

India's armored ground forces, utility landing crafts able to transport supplies and personnel from

ship to shore, and a myriad of rotary wing aircraft able to support amphibious operations. These

craft, are specifically designed for amphibious operations, while some are multi-role crafts able to

support a myriad of mission sets Although this force sounds formidable with the capability to

conduct expeditionary operations, inadequate financial support has kept the Indian Navy from

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[48] Jane's Sentinel Country Risk Assessments. India, (17 October 2007 update)
http://sentinel.janes.com/docs/sentinel/SASS_country.jsp?Prod_Name=SASS&Sent_Country=India&
(accessed 26 October 2007).

[49] Jane's Sentinel Country Risk Assessments. India, (17 October 2007 update)
http://sentinel.janes.com/docs/sentinel/SASS_country.jsp?Prod_Name=SASS&Sent_Country=India&
(accessed 26 October 2007).

realizing its full potential. Future acquisitions and ship construction, and an increasing portion of India's defense budget will continue to modernize India's aging fleet, and aid in India's overall capacity to conduct expeditionary operations. The biggest aspect of Indian Navy's desire to further expand its capability to conduct expeditionary operations, is the procurement and development of an aircraft carrier based force.

India has numerous ambitious naval modernization systems under development. One of which, Aircraft carriers, are a key facet to India's strategy, but the carrier development and refit program continues at a relatively sluggish pace. The current carrier, *Viraat*, has been through refit numerous times. Formerly an ex-Russian aircraft carrier currently under refit, the *Viraat* needs approximately $500 Million in repairs and upgrades. The new Indian designed and built *Vikrant* class carrier is not due for service until 2015 or later.[50] The Indian Navy has the vision of power projection and an expeditionary force, however, defense spending caps, and a lack of adequate emphasis has hindered the vision of truly making the Indian Navy a world-class power projector. India's Navy does have the capacity, however, to effectively sustain itself, and as this study demonstrates, the ability to sustain a Joint force conducting expeditionary operations.

Overall, India is capable of executing power projection of a combat force. However, the ability of the Indians to execute this power projection unilaterally would place considerable strain on their current force structure. The best term to describe their capability may be *ad hoc*. Able to conduct it, but must pull assets from a number of entities not specifically designed for that purpose. Ways in which to better enable power projection include standing agreements with commercial and other governmental agencies for projection assets, increase or re-allocation of funding, and increasing training opportunities amongst branches of the Indian Armed Forces. Documented agreements such as the CRAF in the United States would aid India in its

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[50] Jane's Sentinel Country Risk Assessments. India, (17 October 2007 update) http://sentinel.janes.com/docs/sentinel/SASS_country.jsp?Prod_Name=SASS&Sent_Country=India& (accessed 26 October 2007).

requirement determination, re-allocating funds in support of India's Navy focusing on power projection, and again, training across branches within the armed forces on specific mission sets of moving and supporting forces while conducting expeditionary operations. In concert with the Indian Air Force and Navy power projection platforms performing the critical movement and maneuver Joint function in deploying expeditionary forces, sustainment is key during the all phases of the operation to including deployment, employment and redeployment.

Sustainment

For a force to sustain itself, there must be adequate amounts of transport assets available to conduct a deployment while simultaneously sustaining itself, and continuing that sustainment throughout all phases of the operation. The question and relevance of how the Indian Air Force sustains Joint expeditionary operations for this study will focus on how the Indian Air Force can persistently sustain ground support operations, while supporting the Indian Air Force's internal sustainment requirements. For an air force, this capability stems from an ability to increase its strategic reach—meaning the ability to extend the lines of communication from the homeland. An appropriate method to measure this is by looking a whether the Indian Air Force can sustain and increase its fighter / bomber aircraft flight distance, and loiter, or on-station time in a ground support role. The Indian Air Force, in its current configuration, has a combined capability of 38 fighter and ground attack squadrons consisting of mostly Russian made aircraft such as MiG-21s, Su-30s, and MiG-27s.[51] To employ its aircraft in a manner consistent with its vision of strategic reach, India has converted IL-76 multi role aircraft to a variant known as the IL-78 MK I Midas Tankers capable of aerial refueling. These IL-78 MK I, of which India has 6, allows the Indian Air Force to extend the range of its fighter / bomber squadrons, and increase time-on-station

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[51]Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/ asia/india/organzn/index.html (accessed 16 October 2007)

supporting ground forces within its strategic reach and national interests. This ability, in order to support an expeditionary ground campaign operating as a combined arms team, is a critical facet of conducting effective Joint operations, helping to ensure the success of expeditionary operations. The ability to support itself is one facet of the Air Forces capability, aiding in the sustainment of the Joint operation is the next major role for the Indian Air Force.

Sustaining a ground battle or campaign, is a critical facet of expeditionary operations. As mentioned previously under movement and maneuver, the IL-76, AN-32, and future C-130J are multi-role aircraft. As such, when these aircraft are not being utilized as strategic deployment platforms, their role shifts to sustainment of forces. The total number of these aircraft within India's Air Force is 188, with additional multi-role transport aircraft under procurement and development to modernize India's fleet and increase its capability.[52] India is now co-developing the next generation of Joint multi-role transport aircraft (MTA) or also commonly referred to the Tactical Transport Aircraft with

Russia. This aircraft, with the capability of carrying 37,000 pounds (18.5 tons), is designed to carry military trucks, cars, and armored personnel carriers (APC), and able to carry 82 troops, or 74 paratroopers combat equipped, or 60 litter patients. Operational range is 2,500 kilometers (1,500 miles). The aircraft has a roll on, roll off capability for vehicles, and can be rigged to conduct air drop operations. The aircraft is designed to replace the aging Antonov 24 aircraft mentioned previously.[53]

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[52] Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/asia/india/airforce/index.html (accessed 7 Feb 08).

[53] Photo courtesy of the Irkut Corporation.

The Indian Navy contributes to the sustainment of expeditionary operations through several means. The most important of which is through its replenishment tankers, transport ships, and oilers. The replenishment tankers are vessels that are able to sustain Joint forces with a myriad of goods to include, food, water, medical supplies, and various other sustainment stocks generally consisting of a mixture of liquid and dry cargo required to support the mission. The replenishment tankers distance capabilities range from 5,500 miles to 12,000 miles. Two of the three replenishment ships can conduct replenishment at sea specifically supporting Naval operations. The *Aditya* class replenishment ship has the capability to carry 12,000 tons of liquid cargo, and up to 5,000 tons of dry cargo.[54] Within India's surface ship inventory, there is only one *Aditya* class replenishment ship; however, there are two additional ships in the *Jyoti* and *Deepak* classes with similar capabilities. In the expeditionary scenario outlined in the beginning of this paper, one *Aditya* class ship is able to maintain a Brigade sized force for ten days alone. In order to calculate an estimate of consumption factors, the United States Army's Logistics Estimate Worksheet (LEW) was used to determine consumption factors for an Indian Brigade's equivalent of equipment and personnel.[55] As an estimate, the amount of dry and liquid cargo that one replenishment ship could carry in order to sustain a ground combat force equaling a brigade combat team is more than ten days. Additionally, the Indian navy has a transport ship capable of transporting 1,200 troops or dry cargo. While most of the ships were originally designed to support naval vessels with the exception of the transport and hospital ships, all, in some capacity, can be utilized as sustainment platforms able to support Joint expeditionary operations.

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[54] Bharat Rakshak, http://www.bharat-rakshak.com/NAVY/Surface.html (accessed 17 Jan 08).

[55] The Logistics Estimate Worksheet or LEW, is a requirements based spreadsheet based on United States Army factors of consumption. Lacking any real data on Indian consumption rates, this study opted to use this data in order to demonstrate a maximum requirement the Indian Armed Forces might need; realistically, Indian forces would likely consume less sustainment requirements than a US Infantry Brigade Combat Team (IBCT) used as a surrogate. US Army Combined Arms Support Command, Futures Center, Multi-functional Logistics Division is the proponent for LEW.

Supporting a brigade-sized operation in Mozambique is entirely possible and plausible for the Indians, if they conduct this operation. Supporting a light infantry brigade within the context of this operation, will not over tax the capability of India. If India, were to attempt to conduct multiple operations of this magnitude, or support a force of multiple brigades including heavy mechanized forces, India may again stretch itself to the limits of its capability if it does not allocate resources to support an expeditionary capability. Recommendations for India closely resemble those of Movement and Maneuver: India should re-allocate funds to support expeditionary operations as a Joint force, bolster resources that conduct this type of operation through procurement or agreements with civilian and governmental agencies, and focus on training and educating of forces in support of expeditionary operations, rather than land based combat operations against a traditional foe. In this next and final section, this study will determine if India can deploy, employ and sustain a Brigade sized combat force now, and if not, when they may have the capability to do so.

Expeditionary Requirements

This portion of the study will present a series of requirements for India to conduct an operation to Mozambique, then identify the capabilities that will meet those requirements, and ultimately determine if and when India will be able execute this expeditionary operation. To set the stage, a brief synopsis of the vignette presented at the beginning of this paper:

> It is 2012 - 2013. India has significant energy resource interests in Africa, specifically within the country of Mozambique. The Mozambique government is in collapse and India must act to defend its national interests there--natural gas reserves, infrastructure, and Indian citizens. United Nations peacekeeping forces are deployed here under a UN Chapter VII mandated resolution, but the UN Peacekeeping Force, known as MOZAMPROFOR, resolution is due to expire. Contributing nations include India, China, and Pakistan, all of which have vested interests in the resource rich area. Operating in the most volatile region of Mozambique, India has suffered a disproportionate amount of casualties in relation to the other contributing nations. Pakistan currently occupies a rotating seat on the UN Security Council, and China maintains its permanent membership. For India, a perfect storm is brewing. The continuing resolution is up for vote and does not have the support of MOZAMPROFOR participants Pakistan and China. China, operating under its own interest, stands to veto any

continuing UN efforts in Mozambique; India believes that Pakistan and China, through the UN, are working against its interests in the African region by not renewing the Chapter VII resolution.

The United States, Russia and Britain have little or no direct interest in India's plight, and continue to be consumed elsewhere.

Based on these circumstances, India will deploy a brigade to support its mission and weakened forces there, unilaterally if necessary, without the continuing Security Council resolution.[56]

The requirements for India to execute this mission are fairly rigorous. The distance from India to Mozambique is roughly 3,300 miles one-way. Implications that India must consider for this distance are refueling operations for its air and naval fleets, because no aircraft, and only few of its naval support vessels can make the round-trip due to distance considerations. The Brigade sized task force it will deploy is 3,500 personnel with an additional 1,045 already deployed in support of the UN MOZAMPROFOR mission for a total of 4,545 personnel required for ground operations. Transportation requirements these personnel once in Africa are approximately 400 wheeled vehicles for general transport, supply distribution, medical evacuation, and security related tasks. Planning considerations for India are that Mozambique continues to be a semi-permissive environment—no significant combat operations—open conflict with other MOZAMPROFOR participants is highly unlikely, and India will plan on supporting the roughly 1,000 Indian citizens living and working in Mozambique temporarily.

This study will determine the operational requirements as done so previously in the study—by Joint function. First, by addressing the command and control Joint function, then movement and maneuver, followed by sustainment. The bulk of which will focus on Movement and Sustainment—those functions that this study can quantitatively assess. Command and

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[56] The vignette here is shortened for ease of use of the reader. For details associated with this vignette, please refer to the full version at the beginning of this study.

control will discuss options that India's Armed Forces may use in concert to direct forces prior to and during the operation, therefore, a qualitative assessment.

Command and control of Indian Forces can be executed in a number of ways. As mentioned in the study, Joint interoperability is a key facet of command and control. As India continues to grow in influence within the region, it will increasingly seek to conduct Joint exercises with its force, but will also partner with other nations and conduct exercises to improve its forces, and its international relations with militaries around the world.[57] Platforms for India to command and control its exercises and operations vary widely. From the air, India has the ability to command and control forces with its Airborne Warning and Control System (AWACS) aircraft, and as a complement, can utilize the *INS Viraat*, India's current aircraft carrier to command and control naval forces. Because of the rigorous requirements for this operation, the Indian navy and the bulk of equipment looks to be moved via sea, and thus, the IN may be the first choice for command and control of this operation at least initially.

Movement and Maneuver. Focusing on the requirement to move roughly 3,500 personnel, associated equipment, and sustainment stocks from India to Mozambique. The force structure of the Indian Army unit deploying to Mozambique is a Light Infantry Brigade—a unit containing no heavy tracked vehicles, and few wheeled vehicles mostly to serve as transportation for units inside of Mozambique. The estimated number of wheeled vehicles according to this estimate is 250. For India, their indigenous transport ships alone could transport a battalion task force of roughly 1,000 personnel and their associated equipment and still have capacity for associated supplies of initial food, water, and ammunition stores. The Indian Air Force, with its

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[57] Chinaview.com, "China, India Wrap up anti-terror training,"*, http://news.xinhuanet.com/english/2007-12/25/content_7306697.htm and Stars and Stripes online, and "US, India plan series of joint Army exercises," http://www.stripes.com/article.asp?section=104&article=25441&archive=true

allocation of 30 IL-76 aircraft, has the ability to transport 140 personnel per flight.[58] Estimating

that at any one time, India may only have the capability to use 15 of these aircraft due to

maintenance or other mission requirements. Thus, the Indian Air Force in this scenario could

roughly move 2,100 personnel with aircraft currently in the inventory in one lift. Additionally, if

India exercised its ability option to utilize its nationalized air carrier, *Air India*, far more aircraft

could be used to carry personnel. Ten percent, or a total of ten aircraft operated by Air India

would give India's forces an estimated 2,000 additional seats to transport personnel; more than

fulfilling India's requirement to move personnel into Mozambique. Also of note, what is not

taken into account is utilizing Indian naval vessels not designed to carry personnel, but able to

transform their mission requirement to one that meets an expeditionary role.

Moving personnel and ground equipment, the Indian Navy brings supplementary

capability to the maneuver function supporting a power projection of ground forces. Ships in the

Indian Naval inventory such as the *Magar*, and *Jalashva* are examples of amphibious ships able

to transport both personnel and equipment in large quantities over long distances. The *Magar*

landing ship has the capability to transport over 20 tanks and 500 personnel, but can flexibly

move more personnel or trucks in lieu of tanks. In lieu of tanks, for this scenario, the study will

substitute an estimated 2 trucks, for 1 tank, bringing the total to 40 per vessel. The *Jalashva* is

similar in size and mission, with the capability to carry 400 personnel into areas and off-load

them by amphibious means. With a total of 3 *Magar* systems, and 1 *Jalashva* system, these

vessels can transport 1,400 personnel and an estimated 160 vehicles—fully half the number of

trucks required within this estimate. The additional 140 vehicles required for this operation could

be moved by a number of other methods.[59] The transport ships mentioned in the previous

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[58] Military Periscope, *India*, (1 April 2007 update) http://www.militaryperiscope.com/nations/
asia/india/organzn/index.html (accessed 16 October 2007)

[59] See Footnote number 55. The Logistics Estimate Worksheet aided in calculating the total
requirements for this operation.

paragraph could be used to transport the majority of ground vehicles with only a minimal amount of personnel to manage the vehicles while the ships were underway. Each transport ship has the ability to carry 4,963 Dead Weight Tonnage (DWT or amount of cargo a vessel can carry).[60] By tonnage, the vessel could carry 400 vehicles. Realistically, however, 200 is more feasible for this load class and type vessel. As additional options, India could conceivably use its current aircraft carrier, the *Viraat*, to transport personnel and equipment, as well as the *Lakshadweep* hospital ship. Rather than use the carrier to transport aircraft into a semi-permissive environment, the *Viraat* could carry trucks to Mozambique, and the hospital could be used as a personnel transport if necessary. By 2012, the Indian Navy will also have its second and third aircraft carriers in service, able to provide the same type of support, or be used in their traditional role by projecting naval air assets.[61] The list of ships provided, are not all inclusive of the ships able to transport equipment and personnel, but they are presented as options to illustrate the requirements for this scenario. With all three of the major Indian Armed Forces engaged in this mission, India maintains a formidable ability to transport personnel and their equipment, but this study will now look at the capability to sustain this expeditionary force.

Once forces are operating in Mozambique, the estimated daily requirement to sustain the forces is 260 tons including food and water, general supplies, barrier and construction material, ammunition, health and comfort supplies, medical supplies, and replacement parts. The estimated fuel requirement is 49,658 gallons per day or 162 tons. If Indian units are not using ammunition in this semi-permissive environment, the requirement drops to approximately 170 tons per day. The basis for this usage is a total of 4,545 military personnel and 1,000 civilians operating in

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[60] Bharat Rakshak, http://www.bharat-rakshak.com/NAVY/Surface.html

[61] Numbers used for this estimate on capabilities of India's Naval ships and aircraft are from *Military Periscope*. This study takes these numbers, and obviously morphs the capabilities into something more applicable to the scenario—in this instance using trucks as a requirement for transport and not tanks. Military Periscope website: http://www.militaryperiscope.com/nations/ asia/india/organzn/index.html

Mozambique. One *Nicobar* class transport ship has the capability to carry 4,963 tons. The total

daily requirement in tonnage to support this Brigade including fuel and all other classes of supply

is 422 tons. Thus, one Nicobar class transport ship could sustain the ground expedition forces for

11 days without resupply. Additionally, while this transport ship supplies the expedition on the

ground, aircraft for the Indian Air Force could continually maintain an air line of communication

(ALOC) to aid in the sustainment of forces, or be used as a method of emergency re-supply.

Each IL-76 can transport up to six International Shipping Organization (ISO) containers.[62] The

estimate for daily resupply of the Indian brigade operating in Mozambique calls for a total of 26

containers total per day, of which ammunition is 9. Therefore, if Indian forces were not in need

of ammunition every day of the operation, 3 IL-76 aircraft could transport the total daily

requirement of supplies necessary to sustain this expeditionary operation. India, if it operates

similar to the United States, will contract for fuel in Africa after initial operations and would not

require delivery from India. According to Bharat-Rakshak, a consortium of Indian military web

sites, if India decided to support ground fuel operations with its Joint forces, 162 tons of the daily

requirement can be met with a *Jyoti* class replenishment tanker that has the cargo capacity of

more than 25,000 tons of fuel.[63]

The previous paragraphs in the subsection offered possible solutions for India to conduct

its operation. This study will now recommend an optimized method to conduct and support this

operation. For command and control of is armed forces, the Indian Naval Ship (INS) *Viraat* will

provide the initial structure and requirements for this Joint Force. This seems to be the most

logical and convenient method, as India's Navy is the most experienced at conducting

expeditionary operations, and a Standing Joint Force Headquarters (SJFHQ) does not exist within

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[62] Venik's Aviation, Ilyushin IL-76, http://www.aeronautics.ru/archive/vvs/il76-01.htm (accessed 11 Feb 2008).

[63] Bharat-Rakshak, http://www.bharat-rakshak.com/NAVY/Surface.html (accessed 17 Jan 08).

the Indian Armed Forces. Movement of personnel by air, equipment by boat, and sustain the operation with a combination. For movement, Army personnel will travel by air via indigenous Indian Air Force aircraft and by Air India. Movement of trucks and support equipment will move by four amphibious ships, three *Magar* class, and one *Jalashva* class totaling 160 vehicles. The remainder of 90-wheeled vehicles will be transported on any three additional amphibious vessels including *Shardul* and *Polcohny* class vessels. Ideally, less than six amphibious ships will be needed for transportation requirements, but this study used a worse case scenario as an estimate. Sustaining these forces will be the one of the two *Nicobar* class transport ship, with the other underway from India as replenishment. IL-76 aircraft, up to 3 per day, can also sustain all general resupply if necessary, with at a minimum, one sustainment flight per day bringing emergency or high demand items. *Aditya* class oilers will sustain ground and naval operations initially, while the *Deepak* class, similar to the *Nicobar* class supply ship, is underway from India to replenish the fleet and ground operations. The command and control assets, movement platforms, and sustainment lines as detailed here, are able to support this operation now. However, much of the Indian Naval assets will be engaged in this operation for a lengthy amount of time—perhaps thirty days or more.

Challenges remain for India to conduct this operation. Numerically, as this study detailed, India can execute this operation immediately within its capability. However, numbers only detail the logistical requirements to conduct this operation. Movement and sustainment of the Indian Armed Forces is credible and capable for the current force structure, but requires significant resources to conduct additional or larger operations. Based on the assets required to conduct this operation, India's flexibility is severely limited in conducting other operations requiring use of the same assets. Command and control—a qualitative assessment outside of the numerical analysis—is the critical Joint function that for India that remains based on ad hoc organizations not habitually trained together to conduct such operations. The bottom line is if the

Indian Armed Forces have an Achilles Heel, command and control for its operational forces may well be it.

Conclusion

India, as a burgeoning power within southern Asia, is poised to become a significant regional power within Asia, and perhaps the world. As the world's largest democracy and the fastest growing population with an enormous capitalist appetite, India finds itself again on the world stage to be strategic partners with a global power such the United States in one instance, and yet, a global competitor interested in agreements with contrarians such as Russia and China. India, in its quest to become a global player and perhaps a leader in the world, must adapt its armed forces to those that can defend its growing interests abroad. The adaptation its armed forces must begin to pursue is one capable of conducting expeditionary operations. Expeditionary operations involve "an armed force organized to accomplish a specific objective in a foreign country."[64] Therefore, if India is increasingly seen as a stabilizing power within Asia and the world, and is beginning to shift to an expeditionary approach to warfare / conflict resolution, then there are key components and subsequent metrics of Joint Operations that the Indian Armed Forces must execute in order to transform their force to one that meets the criteria of being expeditionary.

The three most applicable Joint functions that India must embrace in order to transform their forces are command and control, movement and maneuver, and sustainment. Command and control is the ability of a force commander to effectively order / manage his subordinate formations, where at least one component is outside of India's infrastructure, when a significant span of reach is required. Movement and maneuver are the "related tasks and systems that move

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[64] Department of Defense, Joint Publication 1-02, *Dictionary of Military and Associated Terms* (JP 1-02), p. 193, and DoD refers to Department of Defense in all cases unless otherwise noted.

forces to achieve a position of advantage in relation to the enemy.[65] Finally, sustainment is the

provision of logistics and personnel services necessary to maintain and prolong operations until

mission accomplishment. The focus of sustainment in Joint operations is to provide the JFC

[Joint Force Commander] with the means to enable freedom of action and endurance and extend

operational reach.[66] India, in planning, funding, and executing these Joint functions, is well on its

way in adapting its forces into a viable, expeditionary Joint Force.

   The requirements for India to execute an expeditionary operation under this study's

scenario are rigorous. An infantry brigade consisting of 3,500 personnel, 1,045 of its own UN

peacekeepers, and 1,000 of its own citizens in Mozambique present India with challenges of

deploying its forces and equipment to Africa, employing those forces, and sustaining all military

and non-military personnel throughout the process. India's Armed Forces specific requirement is

to project its forces 3,300 miles, by moving the majority of its military personnel by air,

equipment by sea totaling over 250 military vehicles, and sustaining this operation with a

requirement of 260 tons of supplies per day through a combination of air and sea assets.[67] India,

through the use of all its Joint forces and its nationalized airline, Air India, is able to execute this

expeditionary operation within the context of this scenario today. India, as its interests begin to

increase throughout the world, will continue to further develop and adapt its armed forces to meet

the challenge of conducting expeditionary operations in defense of those interests.

   Shortfalls for India to execute this expeditionary operation exist for the Joint functions of

command and control, movement and maneuver, and sustainment. For command and control,

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[65] United States Department of Defense, Department of the Army Field (FM) 3-0 Full Spectrum
Operations (Draft) p. 4-3.

[66] Department of Defense, Joint Publication 3-0, Joint Operations (JP 3-0), 17 December 2006, p.
III-29.

[67] For a complete breakdown of requirements by class of supply and mode of transportation,
please see the subsection entitled Expeditionary Requirements or Appendix A that displays the logistics
estimate worksheet used to determine the requirements for this operation.

India lacks a standing Joint capable headquarters that can provide the necessary command and control for an expeditionary operation. For a Standing Joint Force Headquarters (SJFHQ) to function effectively, India must also undertake Joint education initiatives for its officers, as well as a robust exercise-training program in order to ensure that this expeditionary force is competent and effective in its mission set. For movement and maneuver, and sustainment—India must correct its shortfalls of ad hoc agreements with commercial and governmental agencies that may be able to support its expeditionary operations—similar to the Civil Reserve Air Fleet (CRAF) program that USTRANSCOM executes for the Department of Defense. In conjunction with supporting movement requirements for its armed forces, India must also begin to look at how it may shift resource allocation to forces that will support an expeditionary operation more effectively. Again, central to virtually all of these recommendations are a well trained and educated officer corps on Joint, expeditionary operations, and the establishment of a SJFHQ that can deploy, employ and sustain expeditionary operations effectively, judiciously, and in support of India's regional and international security interests.

National Security Recommendations

How will the United States address India's actions taken with regard to Mozambique, or in any instance where India seems to willingly take unilateral action in support of its own interests? The question initially seems easy to answer, but as we begin to look at the larger issues in a strategic context, they begin to look a bit more complex. For example, if the United States openly supports India, which by default shows non-support of China and Pakistan in this scenario, there are possible implications on the United States' relationships with these two states. Pakistan, a supporter of the War on Terror, may no longer allow the United States passage rites and use of its port in Karachi to support operations in Afghanistan. China may grow increasingly cold and distant to United States' policy in Asia sparking a new set of tensions over trade, Taiwan, and any other issues that link our two countries. Regardless of these issues, however, the

United States should continue to support its growing strategic partner, India, but do so diplomatically on the premise that India is acting to protect its citizens and overseas economic assets. A method in which to do this is by supporting the resolution to continue the Chapter VII mandate in the United Nations for MOZAMPROFOR, and at the same time, speak out against China's subsequent veto of the UN Security Council's resolution. Overt military support of India's mission may ignite issues with Pakistan and China; not something that this study would recommend at this time. With this indirect support method, India is seen by the world able to accomplish this task unilaterally, with the United States diplomatically supporting it while not upsetting the delicate balance of relations with India's nuclear neighbor, and the rising Asian hegemony of China.

At the strategic level there are two broad national security recommendations that the United States can do with regard to India. First, continue to build stronger ties with India and emphasize a strategic partnership or alliance. Asian countries will continue to gain more influence in the world as their populations increase. China and Russia, most notably, will continue to build their respective relationships and influence in Asia. India as a democratic nation seems to have the ability to stabilize a south Asian region, and simultaneously be perceived as a nation that is non-threatening to its neighbors interested in not aligning itself with any one specific country. This gives India unique legitimacy within its region, and balances what some may perceive as a concern of an influential reformed Russia, and a China that may seek its own hegemony. The United States remains decisively engaged in the Middle East, with little of its efforts dedicated to long-term relationships in Asia.[68] The United States, therefore, must act to build a relationship with India in order to serve US interests in Asia, while having the Indians responsible for that region's greater security. Direct methods in which to do this are

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[68] Decisively engaged is a term used by a senior US Army Officer to describe the US military with regard to Iraq and the larger war on terror. This term was used during a School of Advanced Military Studies (SAMS) lecture, and done so under non-attribution.

greater military-to-military contacts between India and the United States. Already, there are mid-grade officer student exchanges that take place between our countries—continue to grow the program, which has proven to be an influential tool for our nations to strengthen relationships, but also conduct officer exchanges locally with Pacific Command (PACOM) for training and education opportunities. Additionally, the United States should immediately begin a larger array of Joint exercises between the US and India in order to begin a cross-fertilization of tactics, operations, and strategy, to the betterment of both countries' military forces. Specifically, if the US is interested in gaining a partner in southern Asia security, share knowledge on Joint operations, and aid in the initial stand-up of an Indian Standing Joint Force Headquarters (SJFHQ). Tertiary benefits of this contact include increased military personal relationships, economic benefits of a growing market for US Foreign Military Sales and consumer goods, and ultimately the costs of security and legitimacy being absorbed by a US proxy—in this instance India.

The second and final national security recommendation is for the United States to take an immediate and lasting role in mediating Indo-Pakistani relations. India, as well as the United States, does not benefit Pakistan becoming a failed state, or perhaps worse, a radicalized Islamic state. If India and the United States become strategic partners or allies, US—Pakistan relations may become frosty, and possibly send an inadvertent message to the rest of the world that the US is siding against Islam. The significance of the US partnering with both countries has the opportunity to set the conditions for a peaceful, diplomatic resolution of the Kashmir region, and ultimately the relations between Pakistan and India. If these countries can cooperate, and both continue to build upon their respective democratic principles, southern Asia has the opportunity to become stable and less radicalized. With that stability, and India now focused on interests other than Pakistan, perhaps additional stability will burgeon in areas such as Africa, and throughout the Pacific with little direct involvement of United States forces.

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